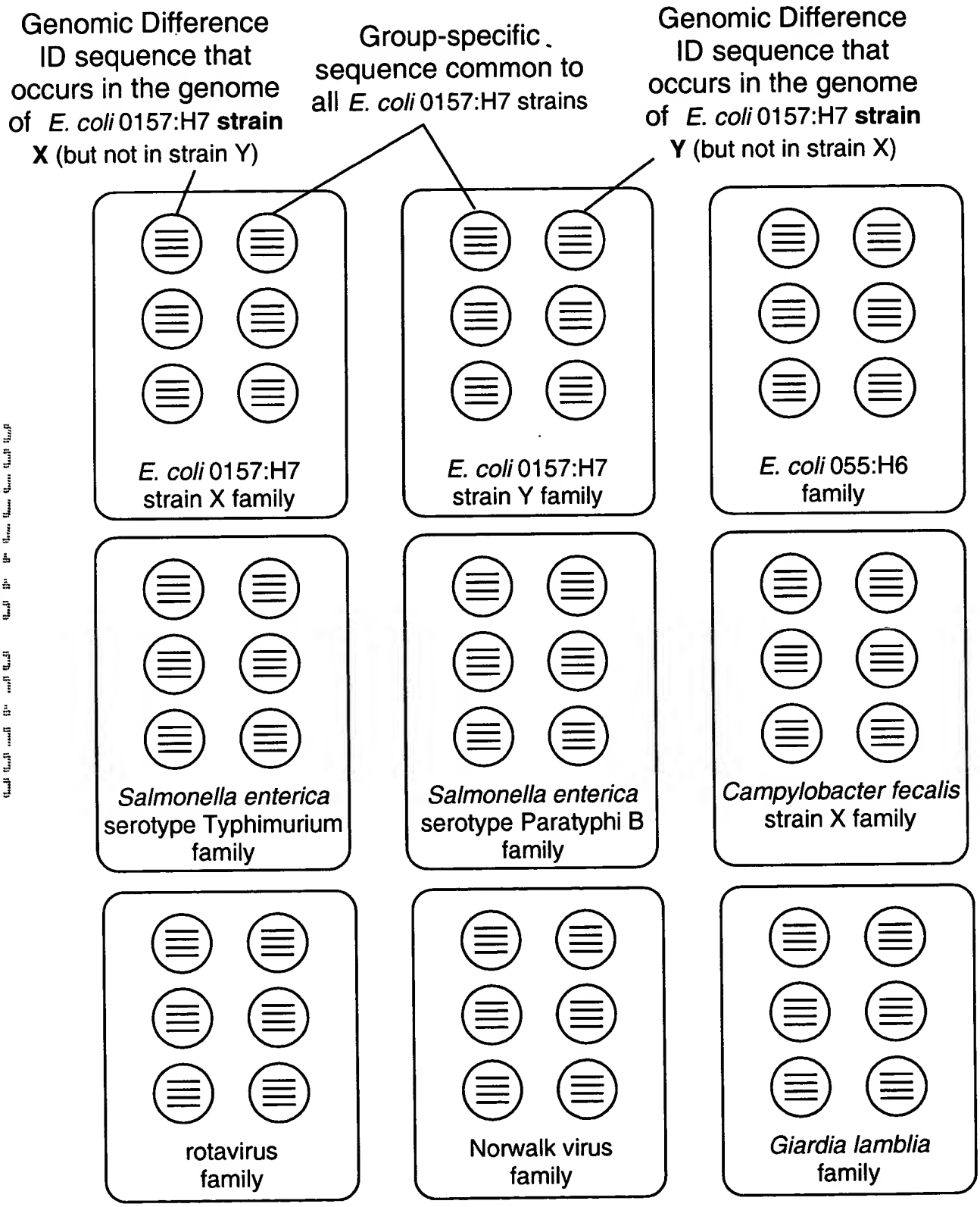
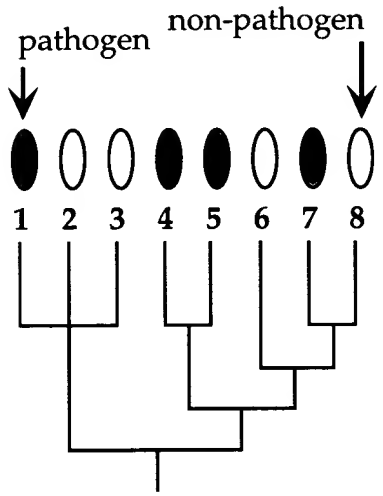
Figure 1.
Ensemble of ID sequences with minimum genomic derivation of 9



Note: By definition, each family can hybridize to the genome of a single individual

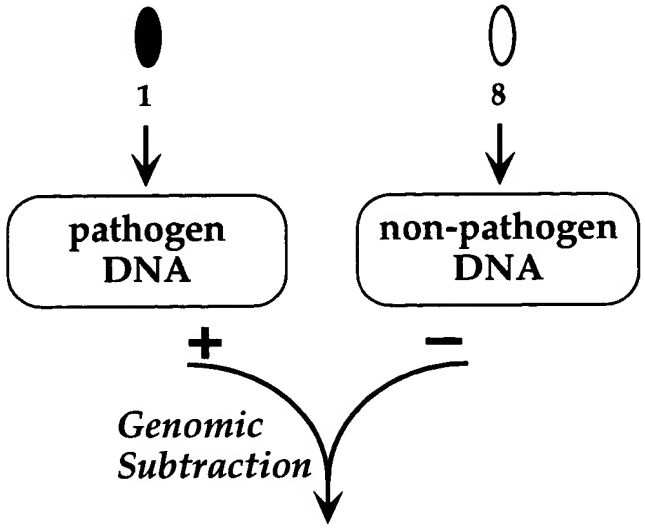
Figure 2.

A.



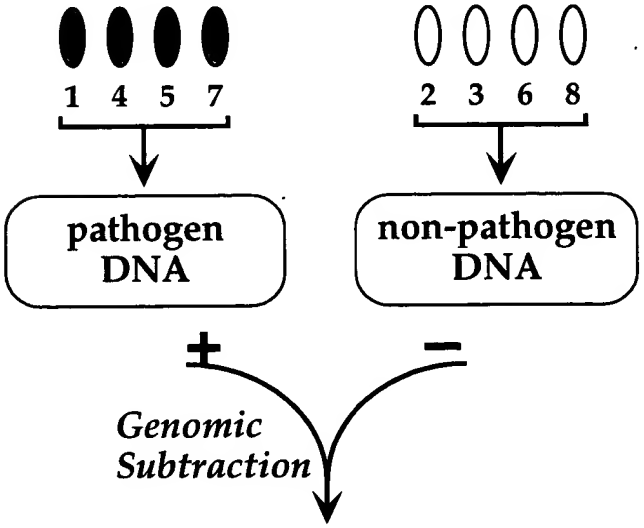
related strains of bacteria including pathogens and non-pathogens

B. Isolating genomic difference sequences using genomic DNA from **individual** strains



strain 1 (pathogen) specific DNA fragments **(genomic difference sequences)**

C. Isolating genomic difference sequences using **pooled** genomic DNA



pathogen specific DNA fragments **(genomic difference sequences)**

Figure 3

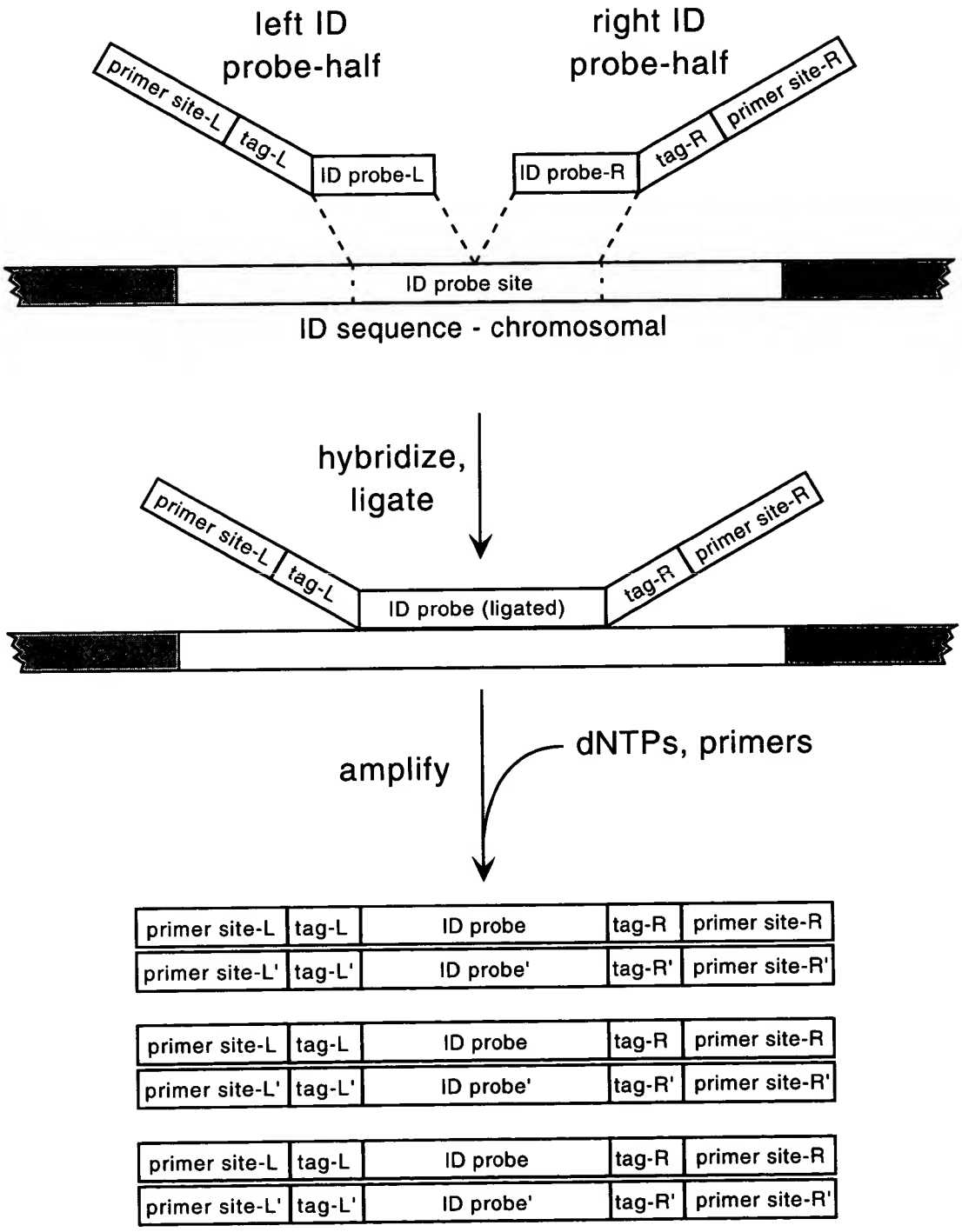

left ID
probe-half
right ID
probe-half
primer site-L
tag-L
ID probe-L
ID probe-R
tag-R
primer site-R
ID probe site
ID sequence - chromosomal
hybridize,
ligate
primer site-L
tag-L
ID probe (ligated)
tag-R
primer site-R
amplify
dNTPs, primers
primer site-L
tag-L
ID probe
tag-R
primer site-R
primer site-L'
tag-L'
ID probe'
tag-R'
primer site-R'

Figure 4.

Examples of different types of detection arrays

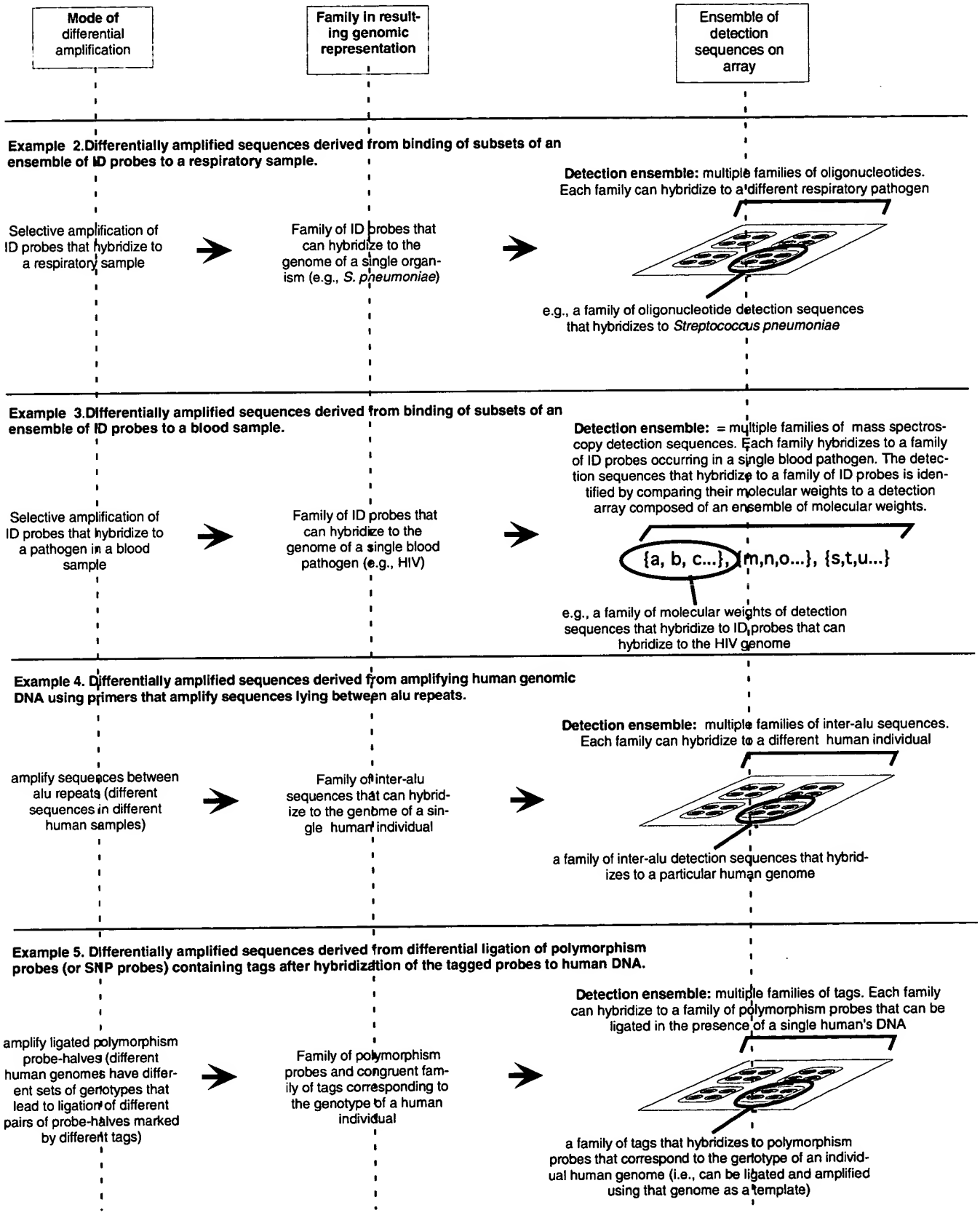


Figure 5

Scanning a clinical sample for numerous pathogens
Genomic Profiling using sample-selection of ID probes

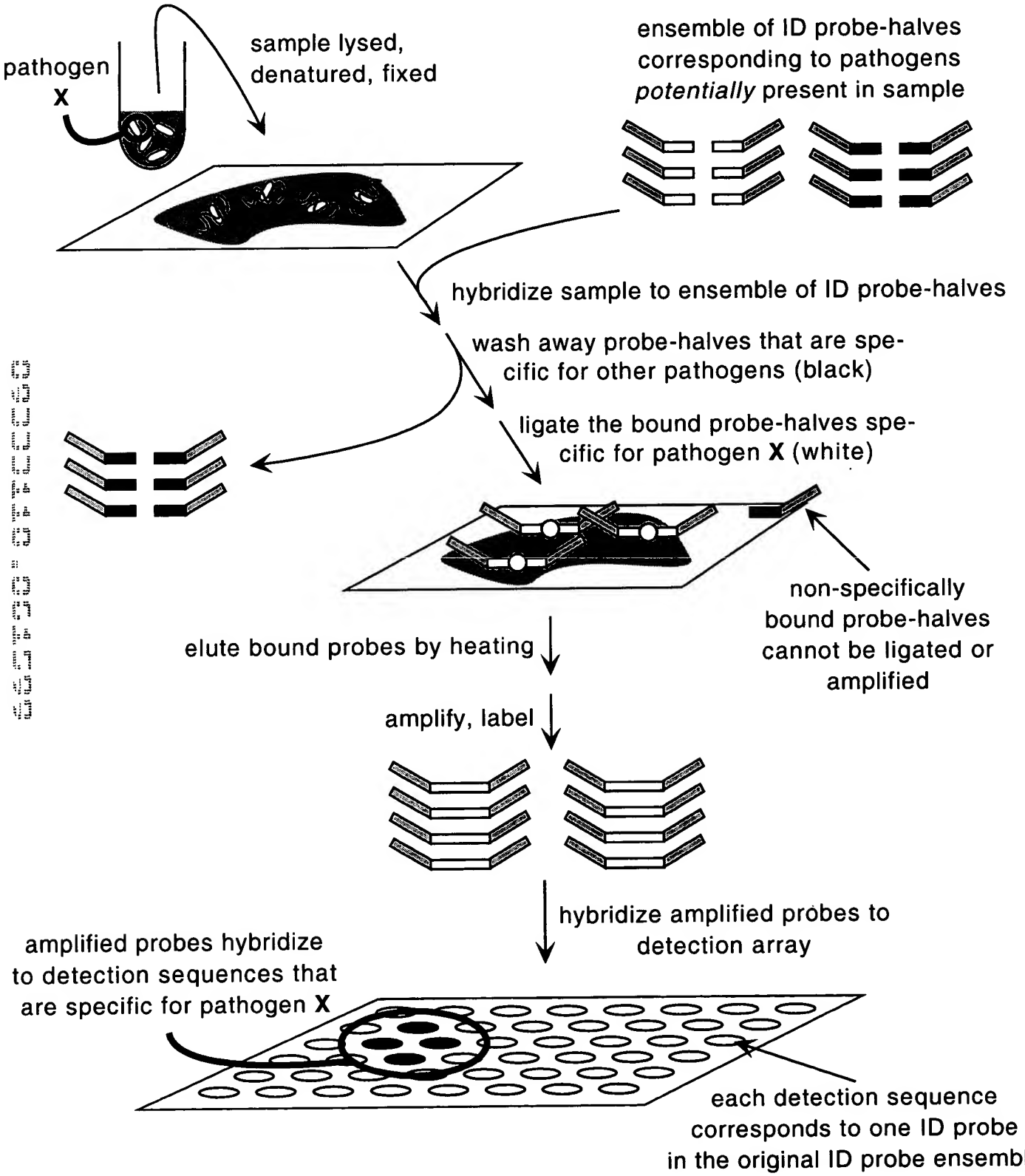
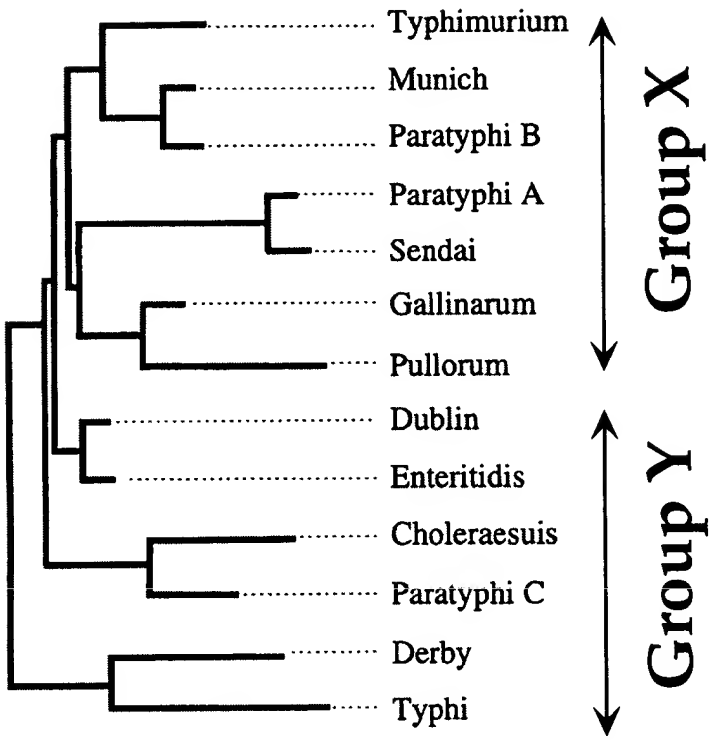


Figure 6



Salmonella enterica
subspecies I

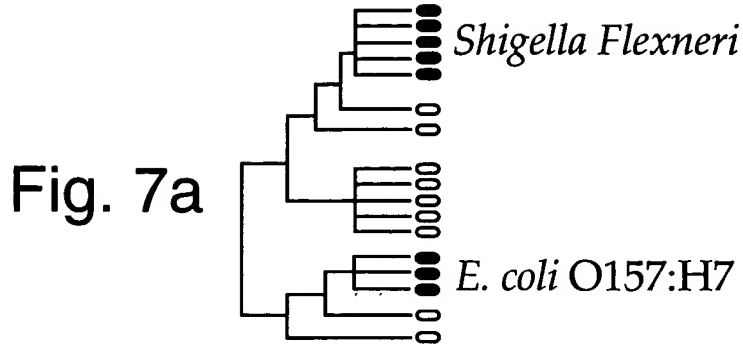


Fig. 7a

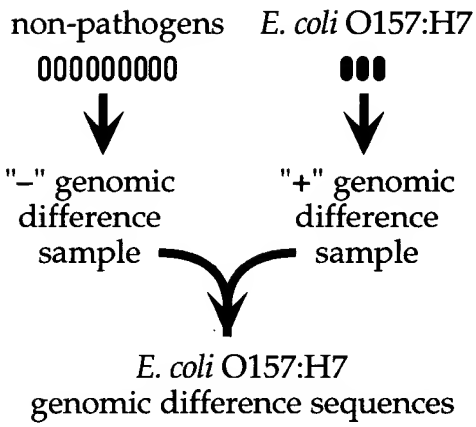


Fig. 7b

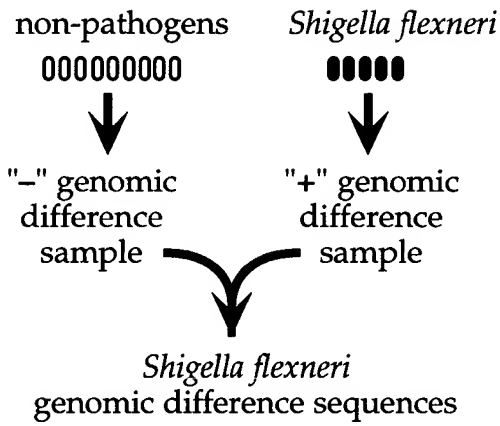


Fig. 7c

Fig. 8A

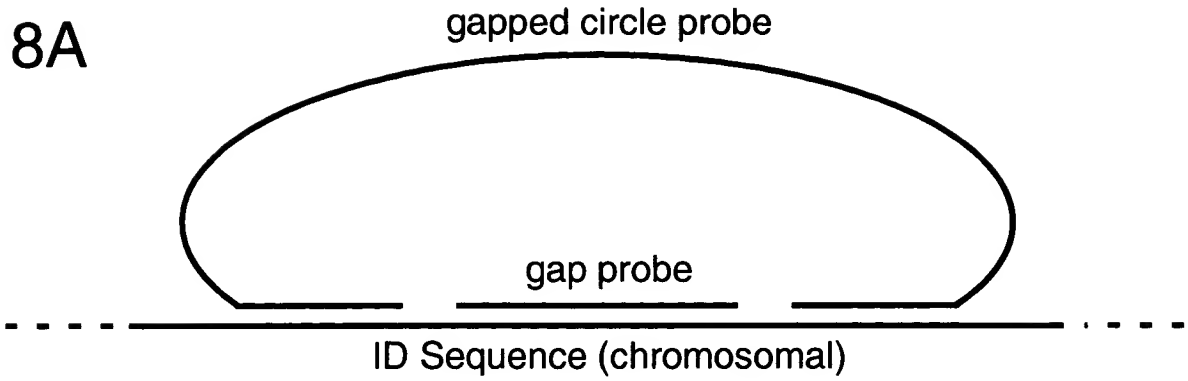


Fig. 8B

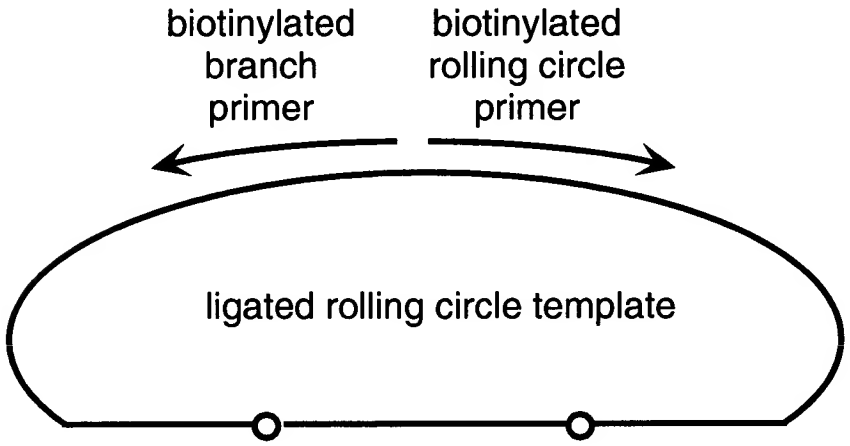
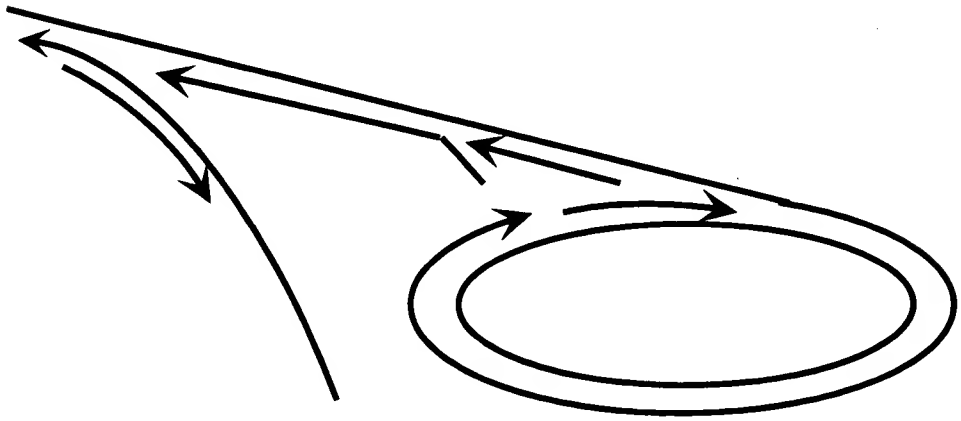


Fig. 8C



hyper-branched rolling circle amplification

Fig. 9A

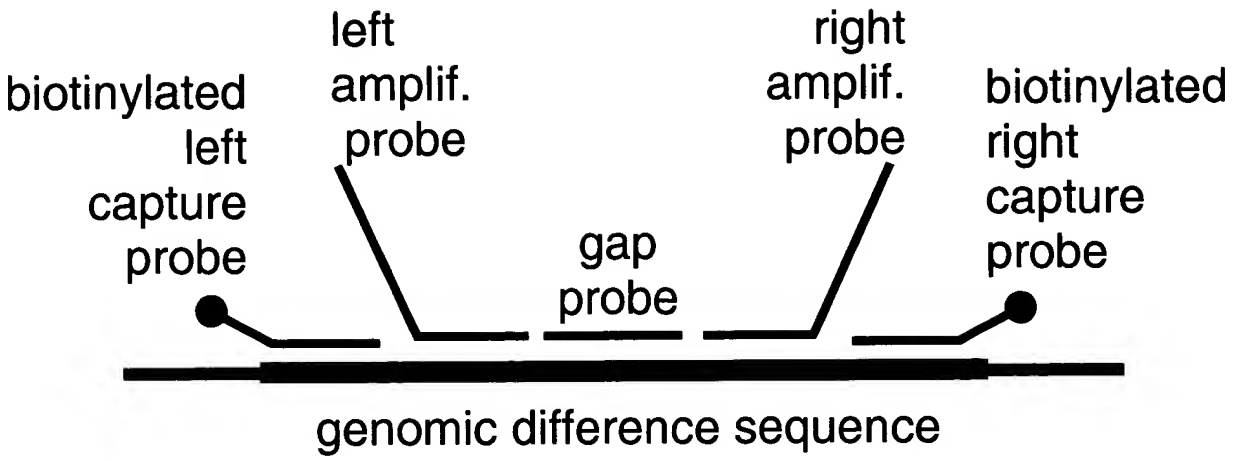


Fig. 9B

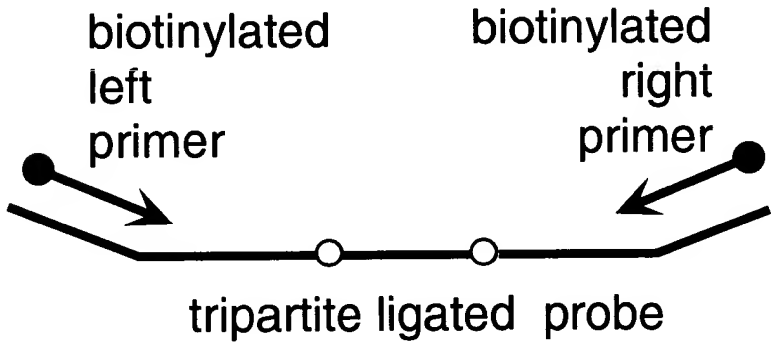


Fig. 9C

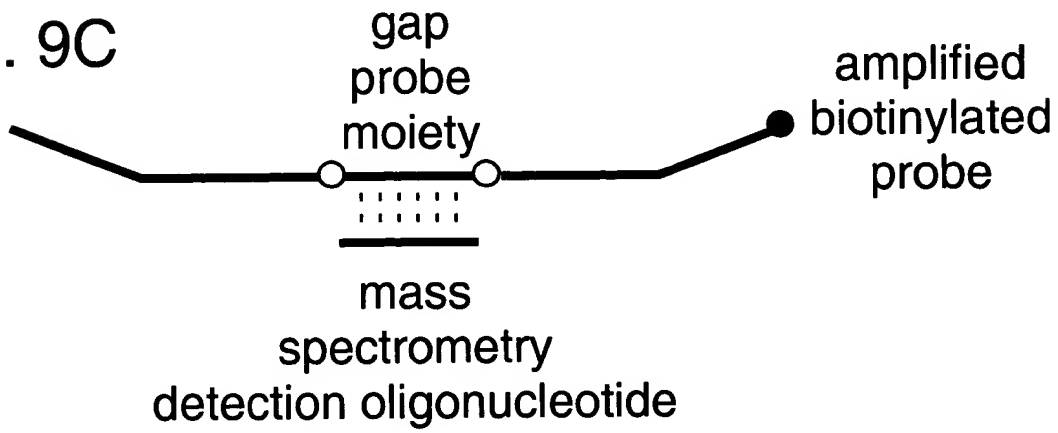


Figure10
Polymorphism probe genotyping

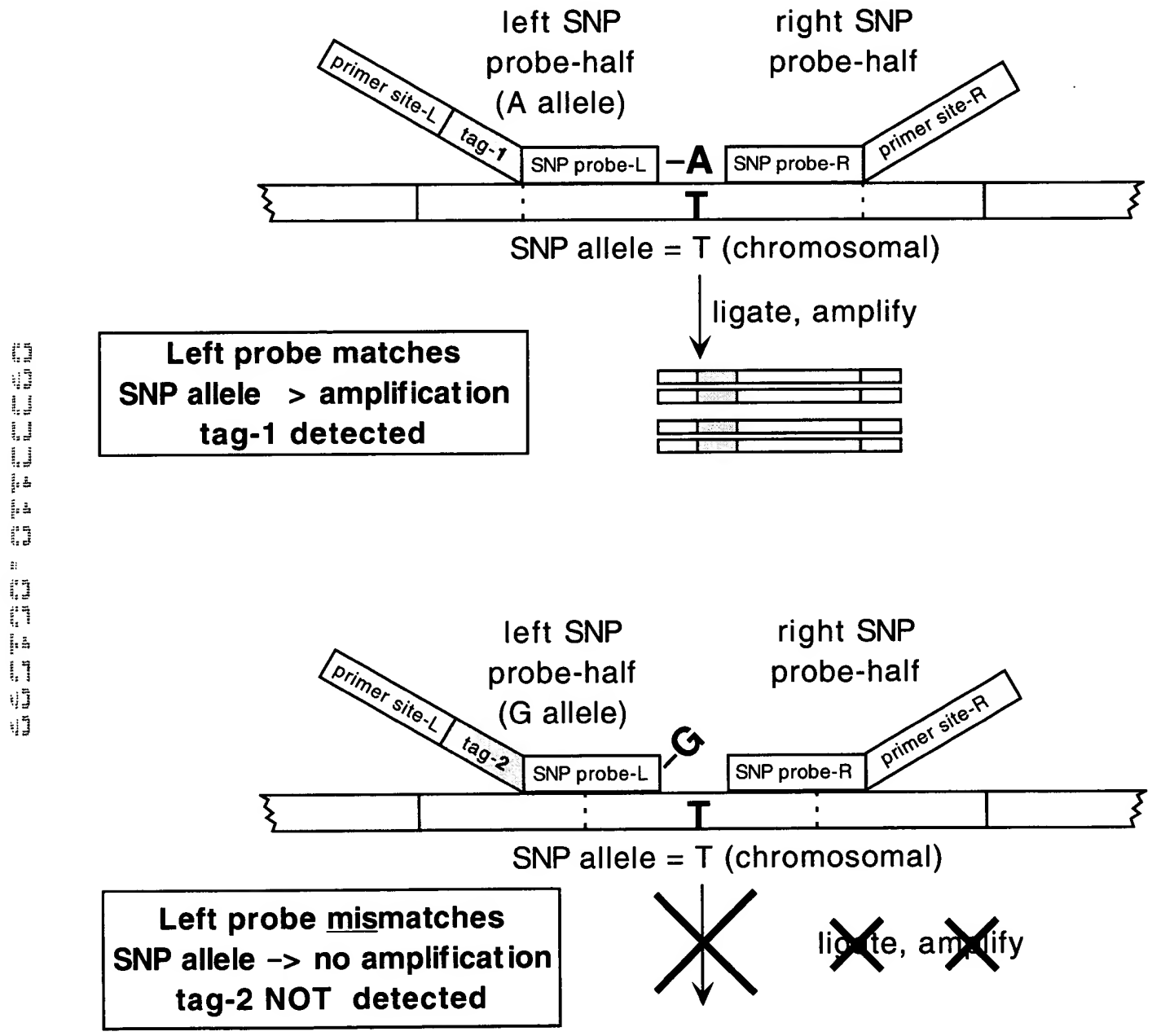


Fig.10
SNP probe hybridization-selection; ligation and amplification depend on match at SNP site

Figure 11

Common steps in 3 types of genomic profiling applications